

REMARKS / DISCUSSION OF ISSUES

The present amendment is submitted in response to the Non-Final Office Action mailed September 28, 2011. In view of the amendments above and remarks to follow, reconsideration and allowance of this application are respectfully requested

Status of Claims

Upon entry of the present amendment, claims 1-18 and 20-28 will remain pending in this application. Claims 1 and 18 have been amended. Applicants respectfully submit that no new matter is added by the present amendments.

Interview Summary

Applicants appreciate the courtesy granted to Applicant's attorney, Michael A. Scaturro (Reg. No. 51,356), during a telephonic interview conducted on Monday, November 21, 2011. During the telephonic interview, a proposed amendment to claim 1 was presented. The Examiner indicated that the proposed amendment, as amended during the discussion, appeared to overcome Marz, however, a further search would be required.

Claim Rejections under 35 USC §102

- I. In the Office Action, Claims 1, 2, 5, 8, 13-18 and 23-28 stand rejected under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent No. 6,593,904 ("Marz"). Applicants traverse the rejections.

In order to maintain a rejection based on anticipation or obviousness, the prior art in combination must show all of the claimed limitations, See, e.g., M.P.E.P. §706.02; §2141. Applicants respectfully submit that Marz does not show all of the claim limitations of independent claims 1 and 18 for at least the following reasons.

Independent Claim 1 has been amended herein to clarify its recitations over Marz. Claim 1 now recites limitations and/or features which are not disclosed by Marz.

Therefore, the cited portions of Marz do not anticipate claim 1, because the cited portions of Marz do not teach every element of claim 1. For example, the cited portions of Marz do not disclose or suggest,

“... a colour compensation device for further controlling light transmission characteristics of a plurality of pixels within each group to compensate for said optical characteristic of each pixel based on a second viewing angle in a second axis of the display panel, wherein the second axis is transverse to the first axis, wherein a correction applied to each of the plurality of pixels within the group is varied according to a pixel position within the group

wherein said correction applied to each of the plurality of pixels within the group comprises:

applying a red pixel colour correction factor to each red pixel within the group, wherein the red pixel colour correction factor varies according to a pixel position within the group,

applying a blue pixel colour correction factor to each red pixel within the group, wherein the blue pixel colour correction factor varies according to a pixel position within the group.

applying a green pixel colour correction factor to each red pixel within the group, wherein the green pixel colour correction factor varies according to a pixel position within the group

wherein the red pixel colour correction factor is different from the blue color pixel correction factor and the green pixel colour correction factor, and wherein the blue colour correction factor is different from the green pixel color correction factor....”

Claim 1 has been amended to further emphasize that the colour compensation device applies a correction to each of the plurality of pixels within the group. The colour compensation comprises applying a **different colour compensation factor for each of the Red, Green and Blue pixels** and **applying a further compensation factor according to a pixel position within the group.**

By way of example, a red colour compensation factor X is applied to each red colour pixel within the group, a blue colour compensation factor Y is applied to each blue colour pixel within the group and a green colour compensation factor Z is applied to each green colour pixel within the group. Moreover, the red, blue and green colour compensation factors, which are different from each other are then modified according to

the pixel position within the group. For example, the red colour compensation factor X is modified for pixel positions 1-7. e.g., X.1, X.2.....X.7. Similarly, the blue and green colour compensation factors are modified for respective pixel positions 1-7.

Applicants respectfully submit that the applied art, Marz fails to teach each of the structural and/or operational relationships set forth in independent claim 1. For example, it is not seen where Marz teaches or suggests applying a **different colour compensation factor for each of the Red, Green and Blue pixels** and **applying a further compensation factor according to a pixel position within the group**. Specifically, it is respectfully submitted that Marz does not teach or suggest, applying a different colour compensation factor to each of the three adjacent liquid crystals 9 behind the various color filter strips 12, 13 and 14 (FIG. 1). Instead, Marz merely teaches that to display color images, red, green and blue color filter strips 12, 13 and 14 are arranged alternately column-by-column between liquid crystal cells 9 and top glass plate 11. *See* Marz, col. 4, lines 20-24. For color image rendering, the three adjacent liquid crystals 9, each located behind the various color filter strips 12, 13 and 14 (FIG. 1), are combined into a color pixel made up of three sub-pixels with regard to their activation.

Marz, Fig. 1: with particular reference to elements 12, 13 and 14.

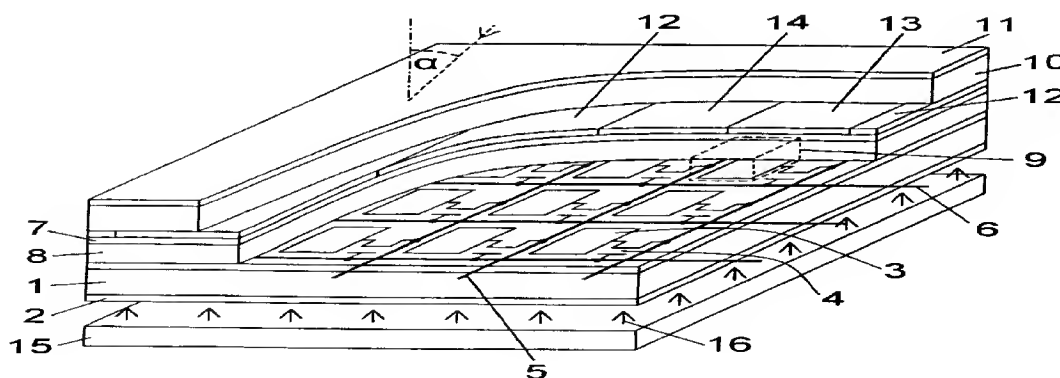


FIG. 1

It therefore follows that Marz does not and cannot teach or suggest further modifying the different colour compensation factors in accordance with a pixel position within the group, since Marz does not teach or suggest applying different colour compensation factors in the first instance, as discussed above.

Support for the foregoing amendment may be found at least in Fig. 4 and paragraphs [0043], [0044] of the US patent application publication of the present invention.

[0043] However, it is apparent from FIG. 4 that the optimal choice of voltages at which to drive the three different RGB pixels is a function of the angle at which the display panel is viewed. Thus, the driving voltages established for an ideal `white` colour viewed through the pixel 0 is sub-optimal for all other pixels 1 to 7.

[0044] The present invention provides a colour compensation device that controls the optical characteristic of each pixel 0 . . . 7 in a group 16 so as to compensate for the viewing angle. **Thus, a colour correction factor applied to each red pixel in group 16.sub.R will be varied according to pixel position 0 . . . 7 within the group. Similarly, a colour correction factor applied to each green pixel in group 16.sub.G will also be varied according to pixel position 0 . . . 7 within the group. Similarly, a colour correction factor applied to each blue pixel in group 16.sub.B will also be varied according to pixel position 0 . . . 7 within the group. Note that, in general, these three colour correction factors will be different.** The colour compensation device preferably substantially normalises a colour displayed by a group 16 of pixels to that of the other groups of pixels for a given location or colour cluster in the display panel. The colour rendering thereby becomes independent of the viewing angle. The expression normalisation of colour may be taken to mean the normalisation of absolute intensity of each colour and also the colour point in the colour triangle.

Based on the foregoing, it is respectfully submitted that the display device of claim 1 is not anticipated or made obvious by the teachings of Marz. Accordingly, the Applicants respectfully submit that independent claim 1 is patentable over Marz and claims 1, 2, 5, 8, 13-17 are allowable, at least by virtue of their respective dependence from claim 1.

Independent Claims 18 recites similar subject matter as Independent Claim 1 and therefore contains the limitations of Claim 1. Hence, for at least the same reasons given

for Claim 1, Claim 18 is believed to recite statutory subject matter under 35 USC 102(e). Claims 23-28 are allowable, at least by virtue of their respective dependence from claim 18.

Claim Rejections under 35 USC 103

- I. The Office has rejected claims 3, 4, 9, 12 and 20 under 35 U.S.C. §103(a) as being unpatentable over Marz in view of U.S. Patent No. 6,344,837 (“Gelsey”). Applicants respectfully traverse the rejections.

As explained above, the cited portions of Marz do not disclose or suggest each and every element of independent claims 1 and 18 from which claim {3, 4, 9, 12} and {20-22} respectively depend. Gelsey does not disclose each of the elements of claims 1 and 18 that are not disclosed by Marz. Gelsey is merely cited for teaching a three dimensional display having a plurality of point sources of illumination. Hence claims 1 and 18 are allowable and claims {3, 4, 9, 12} and {20-22} are allowable, at least by virtue of their respective dependence from claims 1 and 18.

- II. The Office has rejected claims 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over Marz in view of U.S. Patent Application No. 2001/0028356 (“Balogh”). Applicants respectfully traverse the rejections.

As explained above, the cited portions of Marz do not disclose or suggest each and every element of independent claims 1 from which claims 6 and 7 depend. Balogh does not disclose each of the elements of claim 1 that are not disclosed by Marz. Balogh is merely cited for teaching a lenticular array positioned adjacent to the display panel, each lenticel with the lenticular array focusing light from selected pixels in the display panel. Hence claim 1 is allowable and claims 6 and 7 are allowable, at least by virtue of their respective dependence from claim 1.

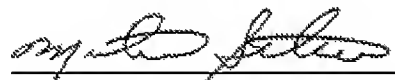
It is respectfully submitted that the amendments to the claims present no new issues requiring further search as the subject matter presented by the amended claims is unchanged by these amendments. No new search is necessitated by these amendments which place the claims in better condition for allowance and/or consolidate and reduce issues that may be pending thereafter for appeal. Accordingly, consideration and entrance of the amendments is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-18 and 20-28 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Scaturro, Esq., Intellectual Property Counsel, Philips Electronics North America, at 516-414-2007.

Respectfully submitted,



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